

Serial No. 10/796,352 - - - - 2

AMENDMENTS TO THE DRAWINGS

None.

Serial No. 10/796,352 - - - - 5

REMARKS

Record of Interview

The courtesies extended by Examiner Tentoni on April 20, 2006 in an interview with applicant's attorney Paul Odell are gratefully acknowledged.

At the interview, attorney Odell presented the arguments set forth below, and pointed out that all of the rejected claims set forth features not taught or suggested by the cited prior art. Applicants' attorney also adopts and confirms the Interview Summary dated April 20, 2006 as issued by the Examiner.

The Rejections Of The Claims Should Be Withdrawn

It was pointed out in the interview that the cited prior art U.S. Patent No. 6,321,923 to Wood, U.S. Patent No. 6,416,312 to Gonser et al., and EP 01810274.9 do not teach or suggest the claimed shaping, orienting and positioning of the billet relative to the mold parts, and that the cited prior art does not appreciate the importance of such process steps.

Independent claim 1 of the instant application sets forth a preferred method for making a closure having a body, a lid, and a hinge connecting the body and lid by a method employing two mold parts which together define the body region, hinge region, and lid region. A billet with a predetermined shape is created from a melt of thermoplastic material and is positioned in a predetermined orientation with at least a portion of the billet disposed adjacent a "second surface region" of one of the mold parts which defines a side of the hinge.

Serial No. 10/796,352 - - - 6

In the instant application specification, on page 21, in lines 16-21, the advantage of this aspect of the invention is described as follows:

“According to the present invention, the billet 60 is positioned adjacent the hinge area of the mold parts so that the thermoplastic material needs only a slight amount of lateral flow to completely fill the relatively thin region of the mold cavity. This assures that the hinge region will be quickly and completely filled with the necessary amount of thermoplastic material.”

Further, as set forth in the instant application specification on page 24, lines 23-25, the thermoplastic material does not have to flow very far to fully and completely occupy the mold cavity region defining the hinge.

Also, as set forth in the instant application specification on page 24, line 30, to page 25, lines 1-7, “Very little, or no, thermoplastic material needs to flow during the compression molding step through the hinge region from either the lid region to the body region or from the body region to the lid region. The molten plastic from the different portions of the compressed billet 60A can quickly flow directly to the surrounding regions of the mold cavity so as to properly distribute the thermoplastic material to completely fill in all the void volume within the mold regions with no wasted material....”

In a particularly preferred form of the invention illustrated in FIG. 11, the billet of thermoplastic material is provided with (1) a large end adjacent, and extending into, the closure body region of the mold parts (wherein the closure body to be formed requires a larger volume of thermoplastic material), and (2) a small end adjacent, and extending into, the lid region of the mold parts (wherein the closure lid to be formed requires a smaller volume of thermoplastic material). This is described in detail in the instant application specification on page 20, lines 28-30, and page 21, lines 1-8.

Serial No. 10/796,352 - - - - 7

The cited prior art does not teach or suggest any of the above-discussed features of the present invention. The cited prior patent to Wood discloses merely a unitary closure molded from thermoplastic material but does not disclose a particular molding process.

The cited prior EP 01810274.9 discloses a method for compression molding a beverage bottle cap in a single hollow cylinder 4 (FIGS. 1 and 2c) of a matrix 2. It does not disclose a method for making a unitary dispensing closure or other article having a first region (such as a closure body), a second region (such as the closure hinge), and a third region (such as a closure lid connected by the hinge to the closure body). A principal object of the process disclosed in the EP prior art document is to temporarily support a pellet 12 of thermoplastic material on a small holder (holder 8 in FIG. 2a) above the bottom wall 5 of the hollow cylinder 4 to prevent excessive cooling and "cold shock" that could be caused by contact with the bottom surface of the hollow cylinder 4. The holder 8 holds the pellet 12 up off the bottom 5 of the hollow cylinder 4 until immediately prior to, or the beginning of, the step of compressing of the pellet 12 in the hollow cylinder 4 of the matrix 2--and this prevents vitrification effects which can result in undesirable surface irregularities in the finished product. However, in the process disclosed in the EP document, the pellet 12 (FIG. 2a) has an irregular shape, and it is not held in any particular orientation by the holder 8 with respect to the surrounding hollow cylinder 4 (matrix 2). The EP document teaches merely that the pellet 12 is initially elevated above the bottom 5 of the matrix 2 regardless of the particular orientation of the irregularly shaped pellet relative to the interior of the matrix 2.

Serial No. 10/796,352 - - - 8

The cited prior art patent to **Gonser et al.** also wholly fails as an effective reference with respect to the subject matter set forth in the claims of the instant application. **Gonser et al.** merely teaches a cam operation system for operating a compression molding apparatus to mold a bottle closure in a single cavity, such as molding a generally cylindrical threaded cap for a bottle of liquid. Applicants' attorney has discovered no teaching in **Gonser et al.** of a process for orienting a billet or pellet of thermoplastic material in a particular way or of positioning a pellet or billet of thermoplastic material in a particular relationship relative to different surface regions of a mold corresponding to different regions of the article being molded. Column 5, lines 5-10 of **Gonser et al.** describe how FIG. 6 illustrates a mold that has a male plunger 126 cooperating with a female mold insert 127 to form a compression molded article in a space 128. There is no disclosure of any process for orienting and positioning a pellet or billet of thermoplastic material, and there is no disclosure of the use of mold parts which define first surface regions, second surface regions, and third surface regions (such as for forming surfaces of a closure body, closure hinge, and closure lid, respectively).

In contrast, the instant application includes a set of claims in which the only independent claims are claims 1 and 7, and each of those independent claims 1 and 7 specifically sets forth a unique step of positioning the billet having a "predetermined shape" in a "predetermined orientation" with at least a portion of the billet "disposed adjacent" a "second surface region" of a mold part (that has (1) a first surface region defining a first side of a first portion of the article or closure body, (2) a second surface

Serial No. 10/796,352 - - - 9

region defining a first side of a second portion of the article or closure hinge, and (3) a third surface region defining a first side of a third portion of the article or closure lid).

In view of the fact that none of the cited prior art patents remotely teaches or suggests the novel billet shaping, orienting, and positioning steps of the process of the present invention as set forth in independent claims 1 and 7 of the instant application, withdrawal of the rejection of the independent claims 1 and 7 is respectfully requested.

Further, in view of the fact that claims 2-6 and 8-12 are each directly or indirectly dependent on one or the other of the above-discussed independent claims 1 and 7, such dependent claims include all of the features of the respective independent claim from which they directly or indirectly depend. Therefore, the dependent claim should be allowable for at least the same reasons that independent claims 1 and 7 are allowable. Therefore, withdrawal of the rejections of the dependent claims 2-6 and 8-12 is respectfully requested.

Allowance of this application is respectfully requested.

Respectfully submitted,

By: 


Paul M. Odell, Reg. No. 28,332

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER
Citicorp Center, Suite 3800
500 West Madison Street
Chicago, Illinois 60661-2511
(312) 876-1800

Serial No. 10/796,352 - - - 10

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being facsimile-transmitted to the U.S. Patent and Trademark Office (571) 273-8300 on May 4, 2006.



Paul M. Odell